# WATER

# CONSERVATION NE

Department of Water Resources

Division of Local Assistance

Nater Conservation Office

#### In this issue...

SCWC Teams Up with
High Schools to Conserve
Water1
///
AB 3616 Finally on Its
Way to Approval 1
way 10 Approvai 1
Whatever happened to the
Water Conservation
Advisory Committee? 3
Measuring Your Soil
<i>Moisture</i> 4
Perfecting Irrigation 6
i erjeening ir ngament
Summary of Major
Summary of Major
California Water
Legislation 7
Water Conservation
<i>News Briefs</i> 8
Water
Conservation-Related
Events in California 10
20 Jan 10
CIMIS Network

*News......12* 

### SCWC Teams Up With High Schools to Conserve Water

Southern California Water Company's ultra-low-flush toilet distribution program is a success because it provides thousands of dollars to high schools and community-based, nonprofit organizations and saves millions of gallons of water.

One-day events provide the Company's customers with premium-quality ULFTs and reward the participating high school or local community-based organization with \$15 for each toilet replaced. The program provides for distribution of a new ULFT and return of the old toilet for recycling.

The Company's Metropolitan District Customer Service Area has successfully conducted seven such programs with the cooperation of Los Angeles area high schools. The participating high schools included Artesia, Bell, Cypress, Hawthorne, Leuzinger, Valencia, and Simi Valley. These high schools collectively distributed over 5,000 ULFTs—raising over \$75,000 for their schools' Athletic, Leadership, and Music Departments.

The Company's Arden-Cordova Water Service District, in Sacramento County, distributed 542 ULFTs through the efforts of Cordova High School students—raising \$7,875 for the student body. ACWSD and the Sacramento Regional Waste Water Treatment Plant are now planning a similar joint program for 1997. They plan to pool their resources and seek federal assistance through the U.S. Bureau of Reclamation. This partnering will allow for a program nearly four times as large as it would be otherwise. The Cordova program is especially significant because the Cordova area is predominately nonmetered—demonstrating that water conservation is important even in flat-rate service areas. The

# AB 3616 Finally on Its Way to Approval

After six years of intensive effort, the AB 3616 Advisory Committee has agreed on an approach to implement efficient agricultural water conservation programs. During its mid-October meeting, the Committee approved a final draft of a memorandum of understanding to execute Agricultural Efficient Water Management Practices. At that meeting a number of dignitaries commented on the MOU.

David Kennedy, Director of the Department of Water Resources, applauded the MOU, stating that the voluntary nature of such a program is preferable to employing either mandatory or regulatory measures.

(continued on page 5)

(continued on page 2)

# Water Conservation News provides information on the latest developments in agricultural and urban water conservation programs. This is a free newsletter published quarterly by the California Department of Water Resources, Division of Local Assistance, Water Conservation Office.

For more information about DWR's water conservation programs, call Ed Craddock, Chief, Water Conservation Office, at (916) 327-1655; Keith Watkins, Urban Water Conservation, at (916) 327-1808; or Baryohay Davidoff, Agricultural Water Conservation, at (916) 327-1788. Information is also available from any of the following DWR District staff:

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We welcome any comments, suggestions, and story ideas; please send them to:

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DWR does not endorse any of the businesses or consulting firms mentioned in this newsletter, since there may be others that offer the same or similar services.

#### SCWC teams up with high schools

(continued from page 1)

annual demand reduction from these ULFT programs alone is expected to result in 48,000,000 gallons that do not need treatment.

In addition to distributing ULFTs as a high school fundraising opportunity, the Southwest District in Los Angeles County provided ULFTs directly to residents who were not physically able or did not have the financial means to install a ULFT. The Company has also completed a "Water Cents" survey program in the City of Gardena. This Water Cents survey program included the direct installation of 3,000 ULFTs, 2,000 showerheads, and 3,000 aerators. Because of the success of this program, Assistant City Manager Mitch Lansdell has requested that

the City be allowed to take on full responsibility for a 1,500 ULFT distribution program that will net community organizations within the City over \$97,000. SCWC is planning similar Water Cents programs in both Barstow and Santa Maria.

SCWC Conservation Program Manager Kirk Brewer is delighted to have so much community help. He says that any assistance is valued as there is a real urgency to provide waterconserving programs and devices to the public. "Our success in conserving water would not be possible without the wholehearted support and involvement of all those who have contributed to our programs," Brewer said.



# Mission Statement of the Water Conservation Office

"To advance the efficient management and use of California's water resources in cooperation with other government agencies and the private sector through technical and financial assistance"



This newsletter is printed on recycled paper.

#### **Editorial**

By Ed Craddock

# Whatever happened to the Water Conservation Advisory Committee?

Now that the Department of Water Resources' Water Conservation Office has reinvented *Water Conservation News* on a quarterly basis, it is time to turn our attention to the Water Conservation Advisory Committee. In the *WCN* October issue, we announced that there would be a meeting of a reactivated and reinvigorated Water Conservation Committee on January 30, following the California Irrigation Institute Conference in Fresno on January 28-29, 1997. The all-day meeting will be held at Southern California Edison's Agricultural Technology Applications Center in Tulare. Those of you who were members of the Committee or on the mailing list should have received an announcement by now.

There have been several changes to the Committee in addition to the minor name change.

- The Committee will be cosponsored by DWR and the Mid-Pacific Region of the U.S. Bureau of Reclamation.
- Separate agricultural and urban subcommittees will not meet; instead, the full committee will focus on issues of interest to both, as well as to environmental interests. For example, the first meeting will focus on the population growth projected for inland areas and its effect on land and water use and conservation.
- The issues discussed at each meeting will not duplicate those discussed at the California Urban Water Conservation Council or the Agricultural Water Management Council.
- The meetings will be held semiannually rather than quarterly.

This joint venture of DWR and USBR will help focus our joint statewide efforts in urban, agricultural, and environmental conservation. We welcome you to this first meeting. If you have not attended in the past, please contact Nancy Serrato at (916) 327-1618 and we will mail an agenda to you right away.

# Measuring Your

Long before the CIMIS

The California Irrigation Management Information System was created in 1982 through a joint effort of UC Davis and DWR. It is made up of a network of computerized weather stations which disseminate accurate, detailed information on plant water use and weather data. CIMIS has thousands of users and has become the primary source for irrigation data for many agricultural and landscape water users, farm advisors, and other irrigation specialists.

project, farmers scheduled irrigations by measuring soil moisture. In the 1920s, the soil science community introduced the first, functional, soil moisture measuring instrument—the tensiometer. Later came the electrical resistance "block." These simple inexpensive instruments were produced as commercial products in the early 1950s. Their use for purposes of helping an irrigation manager schedule irrigations was investigated and clearly demonstrated for eight decades in most crops (including urban landscapes), soil types, and methods of irrigation.

In agriculture, these instruments are placed in the active root system of the crop at key locations. They are read by the irrigation manager two or three times between irrigations. By observing the change in the readings, the manager can develop a sense of how fast the soil water is being depleted and when irrigation should be initiated to replenish the soil water

reservoir. After irrigation, or rainfall, these instruments show how effective the water application was in rewetting the soil to field capacity and to the correct depth in the active root system. Agronomy and horticulture have generally established crop guidelines on the level at which soil moisture should be maintained for best production results.

In urban landscapes and recreational areas, these instruments can now be interfaced with the typical controller/solenoid valve-type irrigation systems routinely used to "automate" irrigation functions. They serve as "thermostats" of soil moisture status constantly measuring the soil moisture at key spots in the irrigated

landscape. These instruments can be adjusted for varying irrigation needs which occur due to variables such as plant type, sun exposure, and topography.

With the advent of computer modeling of ET (evapotranspiration), as is used by the CIMIS system, irrigators can obtain estimates of the crop's need for water. This practice of weather-based scheduling can provide valuable information but, due to the variables involved, may still need fine tuning. To effectively use "ET models," irrigation managers are advised to check their soil moisture periodically. Using soil moisture measuring instruments in the field only serves to make the "ET model" more effective.



#### AB 3616 on way to approval

(continued from page 1)

- Lester Snow, Executive Director of the CALFED Bay-Delta Program, indicated that he supports this process. Snow regards the MOU as a means of meeting the agricultural requirement for water use efficiency as a common element in all CALFED alternatives. He stated that CALFED could make effective use of the MOU if there is wide participation of the agricultural community. However, he cautioned that in absence of the agricultural community's commitment and wide support of this process, CALFED would need to look at other means of addressing agricultural water use efficiency.
- Roger Patterson,
  Regional Director of the
  U.S. Bureau of
  Reclamation, stated that
  he believes this MOU is
  the most comprehensive
  work on planning,
  implementing, and
  evaluating water
  management practices in
  any western state.
  Patterson also supported
  the concept of ultimately
  having one water
  management planning

- process for California that would meet the needs of AB 3616 and Central Valley Project Improvement Act.
- Robert Reeb of the Association of California Water Agencies indicated that ACWA is considering adopting a resolution in support of the MOU and recommending that its member agencies become signatories. (At at November 22 meeting. ACWA's Board of Directors approved the resolution for the MOU and also recommended that ACWA become a signatory. In addition, at ACWA's fall conference in December, a panel discussed the AB 3616 MOU.)

In November, the MOU was sent to agricultural water suppliers, environmental groups, and other interested parties for signatures. The document will become effective after 15 water suppliers representing 2 million acres of irrigated land have signed; this is expected by the end of January. The Agricultural Water Management Council will meet within 90 days of this effective date to initiate

the development of water management plans and the analysis of EWMPs. At the first meeting of the Council, the AB 3616 Advisory Committee will officially be terminated and the signatories to the MOU recognized.

Copies of the MOU can be obtained from DWR through the Division of Local Assistance. Call Baryohay Davidoff, Chief, Agricultural Water Conservation Unit, at (916) 327-1788; e-mail baryohay @water.ca.gov.

scheduling in such a way as to meet "crop need for water" enhances both quality and production. In landscape irrigation, using these instruments promotes healthy plants and turf and saves the labor needed to reprogram controllers for seasonal irrigation variability. Most importantly, in both instances, it usually helps make more beneficial use of water. And whether on the farm or in the city, eliminating overirrigation protects groundwater quality to the benefit of all society.

In crop irrigation,

If you would like more information on the subject, contact William R. Pogue, President of the Irrometer Company, at (909) 689-1701; e-mail irrometer@aol.com.

# PERFECTING IRRIGATION

Researchers are optimistic that the new lysimeter system in Parlier will help to perfect irrigation scheduling on the west side of the San Joaquin Valley where shallow groundwater tables are causing problems

for growers.

plants. Sensitive
scales register any
weight changes
in the bins,
making it
possible to
determine exactly
how much applied
water is used
compared to crop
water use and
evapotranspiration rates.

containing cotton

Shallow groundwater tables make it difficult to determine the proper balance between applied surface water and accessible groundwater. Despite personal efforts to modify their watering techniques, west side farmers have been unable to perfect irrigation scheduling, resulting in substandard crops.

The Department of Water Resources and the State Water Resources Control Board each contributed \$85,000 to construct the \$300,000 Twin Lysimeter Research Facility. It is operated by the U.S. Department of Agriculture's Water Management Research Laboratory and designed specifically to collect water requirement data on crops grown in shallow saline groundwater.

The facility is made up of a complex underground system that simulates the conditions of a shallow groundwater crop. The system consists of two lysimeters linked to large bins

Other lysimeters located around the San Joaquin Valley and California's desert region have succeeded in obtaining critical data for the purposes of refining irrigation scheduling. Using these lysimeters, WMRL researchers have been able to calculate the water requirements for peaches, grapes, tomatoes, cotton, sweet corn, and alfalfa. Researchers are then able to produce crop coefficients that growers can use for scheduling irrigation.

The Parlier facility is unique in that it is one of the largest in the world and is directly concerned with solving the problem of shallow groundwater tables. Researchers are hopeful that it will prove to be as successful as the others and will produce reliable crop coefficients for growers on the west side of the San Joaquin Valley.

# Summary of Major California Water Legislation

AB 360 (Hannigan) Delta Flood Protection: Delta **Levee Maintenance** (Chapter 601, Statutes of **1996**)—AB 360 became operative upon passage of Proposition 209 at the November 1996 election. The bill provides for the extension and modification of the Delta flood control program through criteria developed by the Departments of Water Resources and Fish and Game.

AB 2766 (Poochigian)
Irrigation Districts
(Chapter 144, Statutes of 1996)—Clarifies the kinds of cost that may be collected by an irrigation district upon redemption or sale of property for delinquent assessments.

**SB Preprint 15 (Costa) Water Transfers**—This bill repeals the existing water transfer provisions in the Water Code and in their

place establishes a two-tier procedure involving expedited short-term transfer proposals and longterm transfers.

#### SB 649 (Costa) Water Pollution (Chapter 1122, Statutes of 1996)—

Exempts from prosecution releases of currently prohibited materials into the waters of the State if parties making the releases hold a permit from the State Water Resources Control Board or a regional water quality control board.

SB 846 (Thompson)
Watershed Management:
Napa Resource
Conservation District
(Chapter 166, Statutes of
1996)—Authorizes a pilot
project for development and
administration of a
watershed management
plan.

SB 900 (Costa) Safe, Clean, Reliable Water Supply Act of 1996 (Chapter 135, Statutes of **1996**)—SB 900 became operative upon passage of Proposition 204 during the November 1996 election. SB 900 provides \$995 million in general obligation bonds for the purpose of financing prescribed water programs, including funding for CALFED-proposed projects to restore the Bay-Delta, clean water projects, and water recycling. Of the available \$995 million, \$30 million is targeted for water conservation and groundwater recharge programs. It is the largest California water general obligation bond in 36 years.

SB 1307 (Calderon)
Public Water Systems
(Chapter 755, Statutes of
1996)—Eliminates
requirements that public
water systems strive to
achieve recommended

public health goals, which are more stringent than maximum contaminant levels, established to ensure the delivery of safe drinking water.

#### SB 1904 (Senate Committee on Agriculture and Water Resources) Committee Omnibus Bill (Chapter 667, Statutes of 1996)—

Would add the Department of Water Resources to the list of State agencies in current law that have access to recent data on property sales held by the county assessor and would authorize DWR to make loans and grants from bond funds. This bill is an urgency measure.

### **Water Conservation**

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#### Water Conservation News Update

Requests for information have noticeably increased since the publication and distribution of the July 1996 edition of *Water Conservation News*. Callers have expressed appreciation for the resumed publication after the long hiatus (the last edition was published in the summer of 1994). They say the newsletter remains the best way to stay current on a wide variety of conservation issues, and they like the format. While most inquiries are from within California, some are from other states and outside the United States. *Water Conservation News* currently has over 10,000 subscribers and is published quarterly. For more information contact Alice Dyer at (916) 327-1653; e-mail adyer@water.ca.gov.

#### Rice Field Day—A Yearly Tradition

In August, California rice growers met for a field day at the Experimental Station in Biggs. This year's field day drew more than 500 people from all sectors of the rice industry. They visited various research sites that addressed rice genetics, variety traits, new pesticides, and water management. Highlights of the day were the unveiling of experimental premium quality short-grained rice being developed for the Japanese market and the "Transgenic Rice" engineered to resist herbicide injury—a development long anticipated by growers for weed control. Individuals who have made significant contributions to the rice industry were awarded the "California Rice Industry Award." For more information, contact Austine Eke at (916) 529-7367; e-mail eke@water.ca.gov.

#### **Research for Leaks**

The American Water Works Association Research Foundation has invited the Water Conservation Office to participate in a Project Advisory Committee overseeing research to pinpoint leaks in plastic pipes. WCO's staff member will be one of three or four PAC members. The results of the year-long project should help to reduce water losses from distribution systems. For more information, contact Charlie Pike at (916) 327-1649; e-mail cpike@water.ca.gov.

#### **Drainage Relief**

Supporting documents for a "Safe Harbor" program to shelter landowners who participate in a drainage relief pilot project are being prepared. Such a program would reduce the concern that land managed for drainage relief might become new habitat for endangered species. With a "Safe Harbor" program in place, landowners who create habitat where none exists now would not be liable for incidental take of listed species. For further information, contact Earle Cummings at (916) 327-1656; e-mail earlec@water.ca.gov.

#### **Cal Poly Teaches Irrigation**

Under DWR's contract, the Irrigation Training and Research Center at California Polytechnic State University, San Luis Obispo, recently conducted an Irrigation System Evaluation Short Course. The class included indoor presentations, outdoor flow and pressure measurement, and data collection needed to determine distribution uniformity for irrigation systems used in California. Eighteen people attended the course in September; the class will also be offered in March of each year. In total, over 500 people have been trained in system evaluations at Cal Poly. For more information, contact Arturo Carvajal at (916) 327-1622; e-mail arturoc@water.ca.gov.

## **Irrigation Controller Manufacturers Discuss Water Efficient Features**

On September 13, an important meeting about irrigation controllers was held at the American Society of Irrigation Consultants' conference in Pleasanton. Representatives of the industry discussed controller features which help improve efficient irrigation management. A representative from the Irrigation Society volunteered to conduct a survey of all of the manufacturers regarding controllers for residential use and provide the information to East Bay Municipal Utility District and the Department of Water Resources. A follow-up meeting was held in Texas in November 1996. For more information, contact Marsha Prillwitz at (916) 979-2397; e-mail mprillwitz@ibr2gw80.mp. usbr.gov.



#### **Federal Energy Directors Talking Water**

Mark Ginsberg, Director of the Federal Energy Management Program of the U.S. Department of Energy, and Millard Carr, Director of the Energy and Engineering Office of the U.S. Department of Defense, highlighted the importance of improving water efficiency at federal facilities. Their remarks were made during luncheon ceremonies at "The Energy and Environmental Management Conference" in September 1996 in Monterey. For more information, contact Charlie Pike at (916) 327-1649; e-mail cpike@water.ca.gov.

#### **ACWA Moves Toward Support of AB 3616**

The Memorandum of Understanding for Efficient Water Management Practices for Agriculturem (AB 3616) was discussed by ACWA's agricultural issues subcommittee. The subcommittee drafted a resolution of support for the MOU by ACWA. The panel, moderated by the California Farm Water Coalition at the ACWA Region 6 meeting in Selma on October 10, culminated in the attendees voting to support the resolution. The full ACWA Water Management Committee approved the resolution on October 22. For more information, contact Ed Craddock at (916) 327-1655; e-mail craddock@water.ca.gov.

#### **Environmental Education Compendium**

A draft of the updated Environmental Education Compendium for Water Resources is under review. The compendium references current water curriculum that has been reviewed and rated by teams of teachers. DWR's cosponsored curriculum, *All About Water*, was the highest teacher-rated K-3 curriculum, and *Project WET* was the highest teacher rated curriculum at most other grade levels. The compendium is sponsored by DWR, a grant from the Department of Education, and contributions from a number of local water agencies. For more information, contact Carolyn Tucker at (916) 653-9891; e-mail carolyn@water.ca.gov.

#### **Cover Crops Planting Demonstration**

A demonstration of cover crops in prune orchards was held on October 1 at Sol Norte Ranch in Butte City. The

demonstration was presented by Biological PRUNE Systems, a cooperative program for Prune Growers designed to refine and adopt economically viable farming practices while striving to protect environmental quality. Information on irrigation efficiencies, consumptive use, and changes in applied water with the introduction of cover crops on prune orchards was made available by several farm advisors and farmers participating in the demonstration. For more information, contact Tito Cervantes at (916) 529-7399; e-mail cervante@water.ca.gov.

#### **Panoche Water District Proposes Pricing Program**

In October 1996, Panoche Water District began implementing a two-tiered water pricing program to reduce the volume of drainage water flowing into the San Luis Drain. One tier will be for preirrigation and the other will be for postplant irrigation. Suggested pricing is \$50 per acre-foot for the first 9 inches during the preirrigation run and an additional \$50 per acre-foot for any amount above 9 inches. Postplant tiers will be established for each crop based on reasonable and agreed-upon water use requirements. For further information, contact either Luis Avila at (209) 445-5443; e-mail lgavila@water.ca.gov; or Chase Hurley of Panoche at (209) 364-6136.

### First Project Completed Under Environmental Water Fund

The Los Angeles Department of Water and Power recently finished work on its 1994-95 Water Conservation Program. Of the four projects funded by a \$36 million matching grant pursuant to the Environmental Water Act of 1989, this is the first one to be completed. Over 140,000 ultra-low-flush toilets were installed. The project is expected to save about 4,200 acre-feet of water per year. For more information, contact Peggy Pollyea at (213) 367-0925.

#### **Stockton East Water District Briefed on CIMIS**

On September 4, SEWD Board of Directors were briefed on the California Irrigation Management Information System and mobile lab program. SEWD is considering CIMIS and mobile labs for its service area. SEWD supplies 65,000 acre-

(continued on page 11)

# WATER CONSERVATION-RELATED EVENTS IN CALIFORNIA

#### ▲ January 11, 1997 BAEER Fair 20

Marin Civic Center, San Rafael

Cost: \$7

For more information, call (510) 657-4847.

—This 20-year anniversary of the BAEER Fair will feature over 100 exhibits and workshops with information on endangered species curriculum, educational recycling programs, water management issues, habitat restoration projects, geology, curriculum materials, and more.

# January 15, 1997 Landscape & Nursery Expo 1997

Community Convention Center, Sacramento Cost: For registration and fee information, call Margo Jonsson, Show Manager, at (916) 442-4470.

—Sacramento Valley's premiere landscape and nursery trade show with educational seminars specifically geared for arborists, landscape professionals, turf managers, and nursery professionals.

#### January 22, 1997

UC Cooperative Extension Irrigation Symposium

UC Davis, Davis

Cost: \$50 (includes lunch and course material)
For more information, call (916) 752-1130
—Nine workshops in three concurrent sessions.
Cosponsored by the Department of Water Resources and California Energy Commission.

#### **♦** January 28-29, 1997

"The Bottom Line—Making Irrigation Pay"

Holiday Inn Centre Plaza, Fresno

Cost: \$120

For more information, call (916) 366-9376

—This is the 35th annual meeting of the California Irrigation Institute. The purpose is to educate those within and outside the irrigation industry about all facets of irrigation in California.

#### **♦** January 30, 1997

#### Water Conservation Committee Meeting

Southern California Edison Agricultural Technology Applications Center, Tulare

Cost: Free

For more information, call (916) 327-1655

—The reactivation of the Water Conservation Advisory Committee in a new semiannual format with a winter and summer meeting. This meeting will focus on irrigation water use and irrigation management related to inland growth on agricultural land. Cosponsored by the Department of Water Resources and U.S. Bureau of Reclamation

#### • February 2-3, 1997

"More Bang for Your Conservation Buck" Industrial, Commercial, and Institutional Water Conservation Workshop

Intercontinental Hotel, Los Angeles

Cost: \$150 for AWWA members

\$250 for nonmembers and anyone registering after January 6 For more information, call (303) 347-6195

—American Water Works Association's all-day water conservation workshop to show how to increase the water efficiency of nonresidential customers such as hotels, manufacturers, restaurants, hospitals, laundries, schools, office buildings, and government facilities. The workshop is intended for water and wastewater utility managers and conservation staff, city officials, facilities managers, environmental groups, and government personnel actively involved in water conservation.

#### • February 6-7, 1997

"Northern California Turf and Landscape 1997 Expo"

Convention Center, Santa Clara

Cost: Free

For more information, call (510) 505-9600

—This exposition and educational seminar will have nearly 300 exhibit booths and 50 educational seminars.

#### • February 12, 1997

"Mechanized Pivot and Lateral Move Irrigation and Management Technologies Seminar"

Southern California Edison Agricultural Technology Applications Center, Tulare

Cost: Free

For more information, call (209) 278-2066

—Includes seminar on irrigation scheduling. Presented by the Center for Irrigation Technology and cosponsored by the Department of Water Resources, Irrigation Association, Kings River Conservation District, and College of the Sequoias.

#### March 11, 1997

Annual Meeting of the California Chapter, Soil and Water Conservation Society of America

Radisson Hotel, Sacramento For more information, call Ed Craddock at (916) 327-1655; e-mail: craddock@water.ca.gov.

# March 19-20, 1997"The 1997 Landscape Industry Show"

Convention Center, Long Beach

Cost: Free if registered by February 21, 1997, otherwise \$5. For more information, call (916) 448-2522

—The show will feature over 300 exhibits, including product manufacturers, suppliers, service contractors, and other trade representatives; presented by the California Landscape Contractors Association.

#### March 26-28, 1997

#### Irrigation System Evaluation Short Course

Irrigation Training and Research Center Cal Poly, San Luis Obispo

Cost: \$200

For more information, call (805) 756-2434

—This is a repeat of the excellent September 1996 Short Course. The class includes indoor presentations, outdoor flow and pressure measurement, and data collection needed to determine distribution uniformity for irrigation systems used in California.

#### **Water Conservation**

news briefs

(continued from page 9)

feet of urban water and 160,000 acre-feet of agricultural water annually. Groundwater extractions by the district are constrained due to overdraft. For more information, contact either Baryohay Davidoff at (916) 327- 1788; e-mail baryohay@water.ca.gov; or Janet Thomas at (209) 948-0337.

### **Customer Surveys Help Pinpoint Water Conservation Needs**

An element in Southern California Water Company's effort to improve water conservation in the home is its Water Use Survey Program. Residents are asked to fill out surveys concerning water use habits inside and outside the home, then mail the surveys to the company. SCWC prepares and sends the customer an output report that uses graphs to demonstrate where the areas of highest water use are, along with suggestions for ways to save water and money. Approximately 2,000 surveys have been mailed, with an encouraging 6 percent return rate. In addition, SCWC conducts on-site surveys in the city of Gardena, in conjunction with the ultra-low-flush toilet program. In this program, a surveyor visits the home, asks the residents a few questions, then supplements the information with a series of water use measurements. Approximately two weeks later the resident receives a personalized output report offering water conservation suggestions. SCWC is pleased to report that the community has responded positively to this program. Surveyors have already conducted about 350 onsite visits. For more information, contact Kirk Brewer at (909) 394 3600.

## **Soil Solutions Corporation Develops New Irrigation Equipment**

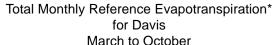
The Soil Solutions Corporation of Visalia, California, has recently developed equipment that will enhance irrigation efficiency. The equipment simultaneously applies dry soluble gypsum (calcium) and a broad range of other dry materials that ultimately increase productivity and water use efficiency. The equipment can be used with any type of irrigation system, even the most delicate, without clogging or harming it. For more information, contact the Soil Solutions Corporation at (209) 651-4100.

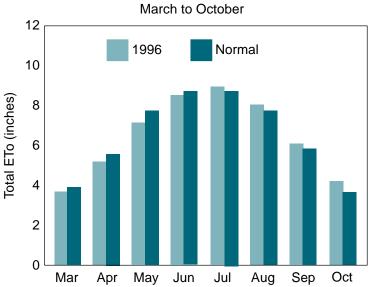
# CIMIS\_ Network News

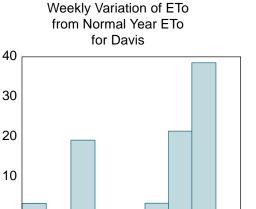
Variation from Normal (%)

-10

-20







Sep

\* Reference Evapotranspiration (ETo) is an estimate of water use of grass that provides an index of water use for all kinds of vegetation. ETo is estimated by weather stations that are part of the California Irrigation Management Information System (CIMIS). The chart on the left compares total monthly current year to normal year ETo, while that on the right shows variation of weekly current year from normal ETo for September and October. Although total monthly normal ETo varies from current ETo by 2 to 11 percent, the weekly variation is as much as 39 percent. Therefore, irrigators who use normal ETo data and have frequent irrigation intervals need to adjust their schedules, or monitor soil moisture content.

Address Correction Requested

Oct

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WATER CONSERVATION NEWS Sacramento, CA 94236-0001